# Letter 9

Jon Sherve

To: Pam Jarnecke/BMFO/NV/BLM/DOI@BLM

cc:

05/04/01 09:23 AM

Subject: Phoenix draft EIS

---- Forwarded by Jon Sherve/BMFO/NV/BLM/DOI on 05/04/01 08:36 AM -----



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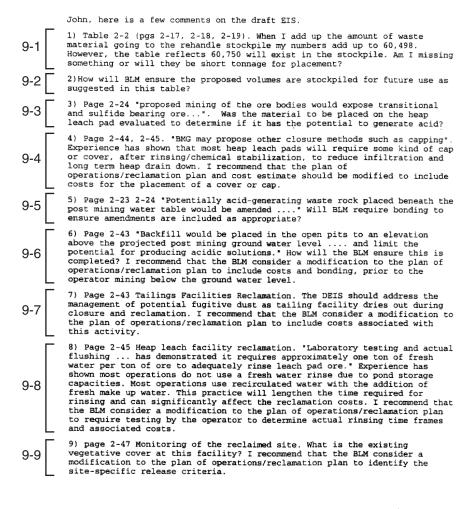
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Subject: Phoenix draft EIS

### **Letter 9 Continued**



## **Responses to Letter 9**

- 9-1 The existing amount of waste rock in the stockpile area plus the amount to be added during the Phoenix Project would be adequate for the required pit backfill. Additionally, other nearby waste rock material also could make up any potential deficiency experienced during mining. Table 2-2 was not intended to be viewed from a balance perspective with respect to this stockpile material.
- 9-2 The BLM will ensure adequate proposed volumes of stockpiled waste rock are available to backfill the wet pits by data gathered during mining operations and concurrent reclamation activities. If necessary, additional sources of material also would be available for rehandle such as those contained in existing or proposed surface-deposited waste mock facilities.
- 9-3 In general, BMG proposes to beneficiate transitional and sulfide ores at the milling facility and oxide ores at the heap leach facility. All materials would be characterized for their acid-generating potential during the mining or closure activities. Also note that process solutions for the heap leach facility would contain added lime such that the potential to generate acid is reduced or eliminated.
- 9-4 Section 2.4.21.8 of the EIS describes that, at present, the heap leach facility reclamation plan consists of rinsing followed by recontouring and capping with 6 inches of cover material. The last sentence of the section refers to a final closure plan that must be completed 2 years prior to the heap leach facility decommissioning, as required by state permit and regulation. Final closure would be specified in that plan based upon monitoring of concurrent reclamation and any additional data generated during the operations.

This rinsing and capping approach is described on page 6-20 of the Phoenix Project Plan of Operations (Brown and Caldwell 2000h). Reclamation cost estimates submitted to both the BLM and the NDEP (Bureau of Mining Regulation and Reclamation) in March 2001 contain costs for placement of this cover.

- 9-5 The BLM would require bonding for amending waste rock that would be placed as pit backfill beneath the anticipated postmining ground water rebound elevation.
- The Plan of Operations (Brown and Caldwell 2000h) and the Waste Rock Management Plan (Brown and Caldwell 2000d) propose placement of waste rock to the highest elevation of anticipated ground water rebound, with additional material to account for uncertainty in the predictions. The BLM would ensure that no pit lakes form in the backfilled pits by data gathered during postreclamation water resources monitoring described in Section 6.0 of the Plan of Operations. Monitoring would consist of monitoring wells constructed in the backfilled material that allow measurement of rebounded ground water elevations in each pit. Monitoring costs for a 5-year postreclamation period are included in the reclamation cost estimate. Monitoring costs for a longer period of time are included in the Phoenix Project Long-term Contingency Fund (Battle Mountain Gold Company 2001).
- 9-7 BMG's state air quality operating permit and proposed Fugitive Dust Control Plan (BMG 2000b) call for appropriate management of fugitive dust emissions from all facilities, including the tailings facility. Concurrent reclamation would minimize fugitive dust from the tailings facility by placement of waste rock or other suitable cap material and establishment of revegetation. During the closure and reclamation period, fugitive dust monitoring required in the permit would determine if air quality standards are exceeded and whether additional measures are necessary to control such emissions. The reclamation cost estimate provided to the BLM and NDEP contains costs for capping and revegetation of the facility.

## **Responses to Letter 9**

9-8 Both the Draft EIS (page 2-45) and the Phoenix Project Plan of Operations (page 6-19) misstated the rinsing requirements as being 1 ton of fresh water per ton of ore rather than 1 ton of recycled barren solution per ton of ore. Results of column testing conducted at McClelland Laboratories in 1994 on heap material from the Santa Fe Mine and subsequent rinsing of the actual heap, both using recycled barren solution, support this rinse solution rate using recycled barren solution. The reclamation bond estimate provided in the Plan of Operations currently includes costs for rinsing the heap with 1 ton of recycled barren solution per ton of ore. Based on the lab testing and actual field rinsing referenced above, that estimate is sufficient. The text in the Final EIS and Plan of Operations has been corrected to state that heap material will be rinsed with 1 ton of recycled barren solution per ton of ore. Heap closure options may be reevaluated when a final closure plan is developed for the proposed heap.

Although not relevant to the bonding calculations, it should be noted that the last leach-grade ore would be deposited on the heap in year 16 of the project. This leaves 12 years to complete leaching and rinsing of the heap while the mill circuit is still operating. This provides the opportunity to conduct a fresh water rinse, if deemed appropriate, and to consume the rinsate in the mill circuit. Following heap reclamation and closure, this schedule may even allow for draindown from the heap to be consumed in the mill circuit for several years.

9-9 With regard to existing revegetation (Reona and Copper Basin reclamation), please refer to the response to comment 3-3. With regard to site-specific release criteria, these criteria are addressed in Section 2.4.21.16 in combination with the federal and state required revegetation success evaluation guidelines. Please also refer to the response to comment 3-10.